



বিদ্যাসাগর বিশ্ববিদ্যালয়

VIDYASAGAR UNIVERSITY

BMLT

2nd Semester Paramedical Examination 2022

BIOCHEMISTRY AND BIOPHYSICS

PAPER—V (Unit-9)

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer any *two* questions.

2×15

1. (a) DNA serve as genome among majority of organisms. Explain.

(b) Name one pentose sugar. Write the functions of pentose sugars.

(c) Short note : Non reducing sugar.

5+(1+4)+5

2. (a) What are the sources of first class protein?
- (b) Classify lipoproteins. Write the importance of lipoproteins. Differentiate between lipoprotein and cholesterol.
- (c) Short note : Fat soluble vitamins. 2+(3+4+2)+4
3. (a) Write the clinical significance of diabetic ketoacidosis (DKA).
- (b) Differentiate between saturated and unsaturated fatty acids. Write the significance of phospholipid in our body.
- (c) Describe the biochemical pathway of ornithine cycle. (2+2)+(2+2)+6
4. (a) What is meant by energy-rich compounds? Describe TCA cycle with its energetics.
- (b) Define redox potential.
- (c) What is the importance of isoelectric pH of protein?
- (d) What are the stop codons? (2+6)+2+3+2
- Answer any *one* question. 1×10
5. (a) Why are enzymes called organic catalysts?
- (b) Discuss about the factors affecting enzyme activity.
- (c) Define the Michaelis-Menten equation. 2+4+4

6. (a) Define transmethylation.

(b) How isotope is used in the treatment and diagnosis of various diseases.

(c) How is the physiological pH of blood maintained? 2+4+4

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